

Title (en)
VIRTUAL REALITY LAPAROSCOPIC TOOLS

Title (de)
LAPAROSKOPISCHE WERKZEUGE MIT VIRTUELLER REALITÄT

Title (fr)
OUTILS LAPAROSCOPIQUES À RÉALITÉ VIRTUELLE

Publication
EP 3646309 C0 20230809 (EN)

Application
EP 18749903 A 20180627

Priority
• US 201762526896 P 20170629
• US 201816018012 A 20180625
• US 2018039778 W 20180627

Abstract (en)
[origin: WO2019005983A1] A virtual reality system providing a virtual robotic surgical environment, and methods for using the virtual reality system, are described herein. The virtual reality system may simulate a robotic surgical environment in which a user may operate both a robotically-controlled surgical instrument using a handheld controller and a manual laparoscopic surgical instrument while adjacent a patient table. For example, the virtual reality system f may include one or more processors configured to generate a virtual robotic surgical environment comprising at least one virtual robotic arm and at least one virtual manual laparoscopic tool, a first handheld device communicatively coupled to the virtual reality controller for manipulating the at least one virtual robotic arm in the virtual robotic surgical environment, and a second handheld device comprising a handheld portion and a tool feature representative of at least a portion of a manual laparoscopic tool, wherein the second handheld device is communicatively coupled to the virtual reality controller for manipulating the at least one virtual manual laparoscopic tool in the virtual robotic surgical environment.

IPC 8 full level
G09B 23/28 (2006.01); **G09B 9/00** (2006.01)

CPC (source: EP KR US)
A61B 34/10 (2016.02 - KR US); **A61B 34/20** (2016.02 - KR); **G06F 3/011** (2013.01 - US); **G06F 3/0346** (2013.01 - US); **G06F 3/04815** (2013.01 - US); **G09B 9/00** (2013.01 - EP KR US); **G09B 23/285** (2013.01 - EP KR US); **A61B 34/35** (2016.02 - US); **A61B 2017/00707** (2013.01 - KR); **A61B 2034/104** (2016.02 - KR US); **A61B 2034/105** (2016.02 - KR US); **A61B 2034/107** (2016.02 - KR US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Participating member state (EPC – UP)
AT BE BG DE DK EE FI FR IT LT LU LV MT NL PT SE SI

DOCDB simple family (publication)
WO 2019005983 A1 20190103; AU 2018292597 A1 20200116; AU 2018292597 B2 20210708; BR 112019025752 A2 20200623; BR 112019025752 B1 20230110; CA 3066476 A1 20190103; CA 3066476 C 20221108; CN 110800033 A 20200214; CN 110800033 B 20230606; EP 3646309 A1 20200506; EP 3646309 B1 20230809; EP 3646309 C0 20230809; JP 2020523629 A 20200806; JP 2022070862 A 20220513; JP 7350908 B2 20230926; KR 102441640 B1 20220913; KR 20200012926 A 20200205; US 10610303 B2 20200407; US 11013559 B2 20210525; US 2019133689 A1 20190509; US 2020261159 A1 20200820

DOCDB simple family (application)
US 2018039778 W 20180627; AU 2018292597 A 20180627; BR 112019025752 A 20180627; CA 3066476 A 20180627; CN 201880043599 A 20180627; EP 18749903 A 20180627; JP 2019567256 A 20180627; JP 2022010064 A 20220126; KR 20197038354 A 20180627; US 201816018012 A 20180625; US 202016799614 A 20200224